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## **Violent Juvenile Sex Offenders Compared with Violent Juvenile Nonsex Offenders: Explorative Findings From the Pittsburgh Youth Study**

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Dustin Pardini,<sup>2</sup> Ruud Bullens,<sup>5</sup> and Theo Doreleijers<sup>6</sup>**

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*Only a limited number of studies have compared the psychosocial characteristics of juvenile sex offenders and nonsex offenders. The results of these studies have often been contradictory. Furthermore, studies in normal population groups are rare and most of those studies have been conducted in specific populations. This paper reports on the findings of a prospective, longitudinal study, the Pittsburgh Youth Study, in which violent male sex offenders (n = 39) were compared with violent nonsex offenders (n = 430) based on 66 demographic and psychosocial characteristics. The findings show that the sex offenders resembled the nonsex violent offenders with respect to nearly all child, family, peer and demographic risk factors. Some suggestions are made with regard to future research.*

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**KEY WORDS:** longitudinal study; juvenile sex offenders; nonsex offenders; predictive factors.

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Since the recognition in the 1970's and 1980's that juveniles are capable of committing sex offenses, many studies have investigated this problem. However, many methodological shortcomings were inherent to these studies, including small sample size, biased sampling, nonstandardized instruments and a reliance on

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exclusive self-report information. When sex offenders were compared with nonsex offenders, adequately defined control samples (i.e. nonsex offender groups) were mostly lacking (Davis & Leitenberg, 1987; Truscott, 1993; Righthand & Welch, 2001). Therefore, the aim of the current study was to compare sex offenders and nonsex offenders from a normal population sample with respect to a number of sociodemographic and psychosocial characteristics, taking into account some of the above-mentioned shortcomings.

The question of whether sex offenders, apart from having committed a different type of crime, differ from nonsex offenders with respect to other characteristics has not yet been resolved. This issue has substantial clinical relevance: if the two groups are similar then identical treatment programs can be applied to both of them, whereas significant differences between them should stimulate the development of group-specific treatment programs. Several studies have shown that juvenile sex offenders resemble nonsex offenders with respect to personality, history of antisocial behavior, cognitive capacities and family characteristics (Becker & Hunter, 1997; Butler & Seto, 2002; Jacobs, Kennedy, & Meyer, 1997; Miner & Crimmins, 1995; Spaccarelli, Bowden, Coatsworth, & Kim, 1997; Truscott, 1993). However, differences may exist: only 40–60% of juvenile sex offenders have a history of (nonsexual) antisocial behavior (Fehrenbach, Smith, Monastersky, & Deisher, 1986; Ryan, Miyoshi, Metzner, Krugman, & Fryer, 1996). This finding may question the notion that sex crimes are part of a general criminal career (Carpenter, Peed, & Eastman, 1995; Van Wijk & Ferwerda, 2000).

Other studies have demonstrated substantial differences between sex offenders and nonsex offenders. A recurring finding is the presence of a history of sexual and/or physical abuse, which has been demonstrated more frequently in sex offenders than in nonsex offenders (Fagan & Wexler, 1988; Hastings, Anderson, & Hemphill, 1997; Jonson-Reid & Way, 2001; Milloy, 1994). Mixed results have been demonstrated with respect to other characteristics (e.g. psychopathology and ethnicity), which may at least partly result from methodological differences between studies (Blaske, Borduin, Henggeler, & Mann, 1989; Davis & Leitenberg, 1987; Herkov, Gynther, Thomas, & Myers, 1996; Oliver, Hall, & Neuhaus, 1993).

It has been demonstrated repeatedly that juvenile sex offenders constitute a heterogeneous group (e.g. Barbaree, Marshall, & Hudson, 1993; Hunter, Figueredo, Malamuth, & Becker, 2003). Therefore, the inability to show differences between sex offenders and nonsex offenders may be a consequence of ignoring this variability. Beckett (1999) stated that studies of adolescent sexual abusers suffer from combining adolescents who abuse children with those who abuse peers or adult women. As a result, differences in re-offense rate that can be expected between subgroups of adolescent abusers may be obscured (Beckett, 1999). Epps and Fisher (2004) described a study in which four groups of juvenile offenders were compared: child molesters, sexual assaulters, violent and property

offenders. It was found that child molesters were less delinquent and were characterized by social isolation and victimization through bullying. Sexual assaulters, on the other hand, used aggression towards peers, sometimes as part of a gang activity. Because it was also found that violent sex offenders were treated similarly to other juvenile offenders in the criminal justice system (Epps & Fisher, 2004) it may be argued that both groups resembled each other on several characteristics.

The main aim of the current explorative study was to investigate whether violent sex offenders (VSO) differ from violent nonsex offenders (VNSO) with respect to a number of individual, family, peer-related and demographic factors. For this purpose, data from the Pittsburgh Youth Study, a population-based longitudinal study of children and adolescents, were analyzed. This study addresses the following questions: (1) What is the prevalence of sex offending in the PYS-group; (2) Which characteristics differentiate violent offenders, including sex offenders, from other antisocial and non-antisocial groups?; 3) Which characteristics differentiate VSO from VNSO?

## METHOD

### Participants

The participants of this study were drawn from the Pittsburgh Youth Study, a longitudinal survey of boys on the development of antisocial and delinquent behavior. The study was started in 1987 with three samples of boys in grades 1, 4, and 7 of public schools. Only the two older groups were included in this study. Details of the study design, sample selection and assessment can be found in Loeber, Farrington, Stouthamer-Loeber and Van Kammen (1998).

Participants in this study were randomly selected from a list of all fourth and seventh grade male students. From this selection, 85% participated in the initial screening assessment (about 800 in each sample). Information was gathered by means of individual interviews with the boys and their parents; their teachers completed a questionnaire. Based on the results of the screening assessment, a risk score was created to identify those participants most at risk for antisocial and delinquent behavior. The top 30% of the most antisocial boys (250) and an equal number of boys from the remaining group were randomly selected from each grade for follow-up. The middle sample consisted of 508 fourth grade boys and the oldest sample of 506 seventh grade boys. Mean age at the screening assessment was 10.2 and 13.4 years, respectively.

During the first 3 years of the study the boys and their primary caretakers from both samples were interviewed at home biannually. After this period the older sample was interviewed annually. The juveniles' teachers completed a questionnaire at the same time. The first 16 assessments of the oldest sample (up to 25 years of age) and 7 assessments of the middle sample (up to 13 years) were used. Attrition rates for both samples have been very low. The average participation rate across

all follow-up assessments is 96% for the middle sample and 89% for the oldest sample.

### **Instruments**

For each assessment, the boys, their parents and their teachers were interviewed on many topics. For detailed information about the scales, questions and the answer scale see Table I and Loeber et al. (1998). A majority of measures were administered at screening and/or the first follow-up assessment, which are referred to as waves 1 and 2 respectively.

### **Comparison Groups**

For the current study, 986 boys in the middle and oldest samples were placed into five mutually exclusive groups using a combination of self-reported delinquency data and official criminal records. Self-reported delinquency data were available from waves 1–7 for the middle sample (1987–1991, ages 10–13), and waves 1–16 for the oldest sample (collected from 1987–2000, ages 13–25). Juvenile and adult court records concerning sex offenses and other forms of violence were available between ages 10–26 and 10–30 for the middle and oldest samples, respectively.

#### *Sex Offenders*

*Group 1.* Participants in this group ( $n = 39$ ; 10 in the middle and 29 in the oldest sample) were convicted of, or self-reported, at least one sex offense according to the Crimes Code of Pennsylvania. Sex offenses include rape, indecent assault, aggravated indecent assault or a combination of these offenses. Non-violent sex offenders (e.g. exhibitionism) were excluded.

#### *Index Violence*

*Group 2.* Participants who had a court conviction for robbery, aggravated assault, or homicide were classified in this group ( $n = 139$ ). The youngest age for index violence was 12 for both the middle and oldest samples.

#### *Reported Violence*

*Group 3.* Participants in this group ( $n = 291$ ) demonstrated self, parent, or teacher-reported violent behavior, but no known juvenile court index violent conviction. Participants were categorized in this group using the General Delinquency Seriousness Classification (see Loeber et al., 1998).

Table I. Description of the Variables

Risk factor respondent <sup>a</sup> & source	Instrument <sup>b</sup>	Waves <sup>c</sup>	No. of items <sup>c</sup>	Example questions	Answer scale or cutoff	Alpha <sup>c</sup>
<i>Child Delinquency</i>						
Screening risk score (PTY) Achenbach & Edelbrock, 1983, 1987 Edelbrock & Achenbach, 1984 Elliot et al., 1985, Loeber et al., 1998	CBCL/YSR SRA/SRD	1	21	ever . . . run away, set fires, attack, truancy, gang fight, vandalism, stealing, joyride, hit /hurt teacher or parent, robbery, burglary, arrested, use alcohol, marijuana, sniff glue	Highest 1/3	N/A
Total delinquency (Y) Elliot et al., 1985 Loeber et al., 1998	SRA/SRD	1 & 2	24	In the past 6 months have you . . . Stole or tried to steal things worth \$5 or less? Purposely damaged or destroyed property that did not belong to you?	Yes/no	N/A
Theft (Y) Elliot et al., 1985 Loeber et al., 1998	SRA/SRD	1 & 2	12	In the past 6 months have you . . . Went/tried to go into building to steal? Snatched a purse or wallet or picked a pocket?	Yes/no	N/A
Fraud (Y) Elliot et al., 1985 Loeber et al., 1998	SRA/SRD	1 & 2	4	In the past 6 months have you . . . Tried to cheat someone by selling them something worthless?	Yes/no	N/A
Serious delinquency (YT) Edelbrock & Achenbach, 1984 Elliot et al., 1985, Loeber et al., 1998	SRA/SRD, TRF	1 & 2	7	In the past 6 months have you . . . Stolen or tried to steal a motor vehicle such as a car or motorcycle? Used a weapon, force, or strong-arm methods to get money or things from people?	3-point Likert Yes/no	N/A
<i>Child Substance Use</i>						
Boy's smoking (P) Achenbach & Edelbrock, 1983	CBCL	2	1	Smokes cigarettes	3-point Likert	N/A
Boy's substance use (PT) Achenbach & Edelbrock, 1983 Edelbrock & Achenbach, 1984	CBCL, TRF	2	4	Parent: You suspect him of drinking, You suspect him of using drugs Teacher: Uses alcohol or drugs	3-point Likert	N/A
Use of hard drugs (Y) Elliot et al., 1985 Loeber et al., 1998	Substance Use Scale	2	14	In the past 6 months have you . . . Used cocaine? Use heroin? Used LSD?	Yes/no	N/A
Drug exposure (Y) Elliot et al., 1985 Loeber et al., 1998	Substance Use Scale	2	2	In the past 6 months . . . How often have you been with someone who had drugs and offered to share them with you?	Open-ended	N/A

Table 1. Continued

Risk factor respondent <sup>a</sup> & source	Instrument <sup>b</sup>	Waves <sup>c</sup>	No. of items <sup>c</sup>	Example questions	Answer scale or cutoff	Alpha <sup>c</sup>
<i>Child Emotional/Behavioral Problems</i>						
Nonphysical aggression (PT) Achenbach & Edelbrock, 1983 Edelbrock & Achenbach, 1984	CBCL, TRF	1 & 2	46	Bragging, boasting, Swears, Threatens others, Teases others, Temper tantrums or hot temper	3-point Likert	.92 (M) .91 (O)
Physical aggression (PT) Achenbach & Edelbrock, 1983 Edelbrock & Achenbach, 1984	CBCL, TRF	1 & 2	29	Gets in many fights, Physically attacks people, Hits teacher, Hits parent?	3-point Likert	.89 (M) .86 (O)
Cruel to people (PT) Achenbach & Edelbrock, 1983 Edelbrock & Achenbach, 1984	CBCL, TRF	1	2	Cruelty, bullying, meanness to others	3-point Likert	.62 (M) .57 (O)
Truancy (PTY) Achenbach & Edelbrock, 1983, 1987 Edelbrock & Achenbach, 1984 Loeber et al., 1989, 1998 Elliot et al., 1985	CBCL, YSR, TRF, SRA/SRD	1 & 2	6	Parent & Teacher: Truancy, skips school Youth: Have you skipped classes or school without an excuse?	3-point Likert Yes/no	N/A
Covert behavior (PTY) Achenbach & Edelbrock, 1983, 1987 Edelbrock & Achenbach, 1984 Loeber et al., 1998	CBCL, TRF, YSR	1 & 2	49(M) 54(O)	Concealing, untrustworthy, manipulative, Lies/cheats, Says he is one place when somewhere else, Can't trust what he says, When confronted about behavior, is a fast or smooth talker, Stays out late at night Doesn't seem to feel guilty after misbehaving	3-point Likert	.93 (M) .93 (O)
Lack of guilt (PT) Achenbach & Edelbrock, 1983 Edelbrock & Achenbach, 1984	CBCL, TRF	1 & 2	2		3-point Likert	N/A
Suspended (PY) Achenbach & Edelbrock, 1983, 1987	YSR, CBCL	2	2	Has been suspended from school	3-point Likert	N/A
Runaway (PY) Achenbach & Edelbrock, 1983, 1987	YSR, CBCL	2	2	Runs away from home	3-point Likert	N/A
Hyperactivity/impulsivity/inattention (PT) Achenbach & Edelbrock, 1983, 1987 Edelbrock & Achenbach, 1984	CBCL, TRF	2	25	Cannot sit still, restless or hyperactive, Impulsive or acts without thinking, Inattentive, easily distracted	3-point Likert	.84 (M) .85 (O)
Depressed mood (Y) Angold et al., 1996	RMFQ	2	13	Is true for you that in the past two weeks . . . You felt miserable or unhappy? You felt that you did everything wrong?	3-point Likert	.82 (M) .84 (O)

Anxiety (PT) Achenbach & Edelbrock, 1983 Edelbrock & Achenbach, 1984 Shy/withdrawn (PT) Achenbach & Edelbrock, 1983 Edelbrock & Achenbach, 1984 At least one disruptive behavior Diagnosis (P) Costello et al., 1982 Loeber et al., 1998 Conduct Disorder (P) Costello et al., 1982 Loeber et al., 1998	CBCL, TRF	1 & 2	15	Clings to adults, Nervous, high-strung, tense, Nervous movements or twitching, Too fearful or anxious Feels others are out to get him? Likes to be alone? Withdrawn, does not get involved w/others? Meets DSM-III-R criterion for Attention Deficit Hyperactivity Disorder; Conduct Disorder, or Oppositional Defiant Disorder Has he ever cut school, played hooky, been truant? Does he get into many fist (physical) fights? Has he ever attacked someone and hurt them badly? Does he often argue with or talk back to you? Does he often seem to deliberately annoy you or other adults or kids? Does he often swear, use bad language, talk dirty, or use obscene words? Is it almost always hard for him to sit still? Does he find it difficult to finish something you ask him to do? When he has to stand in line, does he often try to push ahead or get in ahead of his turn?	.65 (M) .69 (O)
	CBCL, TRF	1 & 2	14		.80 (M) .83 (O)
	DISC-P	2	3		Symptom criteria for DSM-III-R diagnosis
	DISC-P	2	13		Symptom criteria for DSM-III-R diagnosis
	DISC-P	2	13		Symptom criteria for DSM-III-R diagnosis
Oppositional defiant disorder (P) Costello et al., 1982 Loeber et al., 1998	DISC-P	2	28		Symptom criteria for DSM-III-R diagnosis
Attention deficit hyperactivity disorder (P) Costello et al., 1982 Loeber et al., 1998	DISC-P	2	28		Symptom criteria for DSM-III-R diagnosis
<i>Child Sexual Behavior</i> Sexual intercourse (Y) Loeber et al., 1998 Frequent heterosexual sex (Y) Loeber et al., 1998	Sexual activity scale Sexual activity scale	2	1(O)	Have you ever had sexual intercourse with a girl or woman? How many times in the past six months have you had sexual intercourse with a girl or woman?	N/A N/A
Many female partners (Y) Loeber et al., 1998 Age at first sexual intercourse (Y) Loeber et al., 1998	Sexual activity scale Sexual activity scale	2	1(O)	How many different girls or women have you had sex with in the past six months? How old were you the first time you had sexual intercourse with a girl or woman?	N/A N/A
<i>Child Attitudes</i> Positive attitude to problem behavior (Y) Loeber et al., 1998	Perception of antisocial behavior scale	2	118	Is it all right for you to . . . Carry matches/ a lighter with you? Smoke? Use your fists to resolve a conflict?	.77 (M) .84 (O)



Table 1. Continued

Risk factor respondent <sup>a</sup> & source	Instrument <sup>b</sup>	Waves <sup>c</sup>	No. of items <sup>c</sup>	Example questions	Answer scale or cutoff	Alpha <sup>c</sup>
Positive attitude to delinquency (Y) Loeber et al., 1998	Attitude toward delinquent behavior scale	2	11	How wrong is it for someone your age to . . . go into building to steal? Attacked someone w/ weapon or w/idea of seriously hurting or killing them?	4-point Likert	.83 (M) .87 (O)
Positive attitude to substance use (Y) Loeber et al., 1998	Attitude toward delinquent behavior scale	2	4	How wrong is it for someone your age to . . . Drink alcohol? Use marijuana, hashish, or pot? Use heroin, cocaine, or LSD?	4-point Likert	.84 (M) .80 (O)
Low school motivation (T) Loeber et al., 1998	TRF	1 & 2	2	Compared to typical pupils of the same age . . . How hard is he working?	7-point Likert	N/A
Negative attitude to school (Y) Loeber et al., 1998	Introduction	2	7	Do you care what your teachers think of you?	Yes/no	.48 (M) .63 (O)
Low religious observance (Y) Loeber et al., 1998	Introduction	2	2	Do think homework is a waste of time? Do you like going to religious services?	Yes/no	N/A
Unlikely to get caught (Y) Loeber et al., 1998	Likelihood of Being Caught Scale	2	10	How likely do you think it is that you will get caught by police if you . . . Damage or destroy something? Stole something worth <\$5? Hit someone to hurt? Use alcohol?	3-point Likert	.91 (M) .89 (O)
<i>Child Competence</i> Low academic achievement (PTY) Achenbach & Edelbrock, 1983, 1987 Edelbrock & Achenbach 1984	CBCL, TRF, YSR	1 & 2	22	Parent: In past 6 mos., how did your son do in . . . Reading or English? Writing? Teacher: Current school performance . . . Spelling? Math?	4-point Likert	.62 (M) .49 (O)
Low jobs and chores competence (PY) Achenbach & Edelbrock, 1983, 1987	CBCL, YSR	2	6	Please list any jobs or chores your child has. Compared to other children of the same age, how well does he carry them out?	3-point Likert	N/A
<i>Family Factors</i> Discipline not persistent (PY) Loeber et al., 1998	Discipline scale	2	12	Parent: Do you follow through on threatened punishment? Stop grounding him before time is up? Youth: If punished, could you talk your mother out of it?	3-point Likert	.64 (M) .64 (O)

Counter control (P) Loeber et al., 1998	Counter control scale	2	11	Behavior worsens after punishment? Worry that discipline makes him stubborn? Hesitate to discipline because you fear he will harm someone?	3-point Likert	.78 (M) .81 (O)
Physical punishment (PY) Loeber et al., 1998	Discipline scale	2	3	Caretaker: If your son does something not allowed/ you don't like, do you slap, spank or hit him with something? Youth: If you do something you're not allowed/parents don't like, does mother slap, spank or hit you with something? ... Does your father...?	3-point Likert	N/A
Parents disagree on discipline (P) Loeber et al., 1998	Discipline scale	2	2	You & partner agree how to bring up son? Disagree openly w/partner about how to discipline son when son is present?	3-point Likert	N/A
Poor supervision (PY) Loeber et al., 1998	Supervision/ involvement scale	2	8	Parent: If you/another adult is not home, does he leave note/call to let you know where he's going? Youth: If parent(s) not home, do you leave note/call about where you're going?	3-point Likert	.62 (M) .67 (O)
Boy not involved (PY) Loeber et al., 1998	Supervision/ involvement scale	2	8	Parent: Son helps plan family activities? Likes to get involved in family activities? Youth: You go to movies, sports, other events w/family? Religious observances?	3-point Likert	.62 (M) .73 (O)
Positive parenting (PY) Loeber et al., 1998	Positive parenting scale	2	16	Parent: When your son did something that you liked or approved of, how often did you... Say something nice about it; praise or give approval?	3-point Likert	.72 (M) .75 (O)
Poor relationship w/caretaker (PY) Loeber et al., 1998	Child's relationship with parent/siblings scale	2	29	Parent: Felt you needed a vacation from your son? Wished you never had him? Got along w/him? Youth: Thought mother really good? Wished father would leave you alone? Liked being your mother's kid? Successfully dealt w/irritating life hassels? Felt things were going your way?	3-point Likert	.85 (M) .89 (O)
High parental stress (P) Loeber et al., 1998	Perceived stress scale	2	14		3-point Likert	.83 (M) .83 (O)

Table I. Continued

Risk factor respondent <sup>a</sup> & source	Instrument <sup>b</sup>	Waves <sup>c</sup>	No. of items <sup>c</sup>	Example questions	Answer scale or cutoff	Alpha <sup>c</sup>
Poor communication (PY) Loeber et al., 1998	Revised parent-adolescent communication form	2	49	Parent: Get honest answers when you ask son questions? Very easy to express true feelings to him? Insults you when he's angry w/you? Youth: You admit mistakes w/out trying to hide them from your father? Have your say when mother disagrees?	3-point Likert	.86 (M) .90 (O)
Child abuse Stouthamer-Loeber et al., 2001	Allegheny county children & youth services	Year 1994	1	Substantiated case of abuse on file when data collected in 1994, covering ages: Birth to age 16 middle sample Birth to age 18 oldest sample	Yes/no	N/A
Parent substance use (P) Loeber et al., 1998	Family health questionnaire	2	2	Does mother or father (living in household or absent) have/ever had/ever sought help for alcohol or drug problems?	Yes/no	N/A
Parent anxiety/depression (P) Loeber et al., 1998	Family health questionnaire	2	2	Does mother or father (living in household or absent) have/ever had/ever sought help for depression or anxiety/nervousness?	Yes/no	N/A
Parent behavior problems (P) Loeber et al., 1998	Family health questionnaire	2	2	Does mother or father (living in household or absent) have/ever had/ever sought help for behavior problems?	Yes/no	N/A
<i>Demographic Factors</i>						
Low SES (P) Loeber et al., 1998	Demographic questionnaire	2	6	Years of education? Highest degree? What is/was current/previous occupation?	Hollingshead definitions	N/A
African American (P) Loeber et al., 1998	Demographic questionnaire	1	1	What is the study child's race?		N/A
Poor housing (Interviewer)	Interviewer questionnaire	1	8	Did you notice any of the following in the household: structural defects such as sagging porrails or broken steps?	Yes/no	N/A
Poorly educated mother (P) Loeber et al., 1998	Demographic questionnaire	2	1	What is the highest grade you completed in school?	Cutoff <12 yrs.	N/A
Young mother (P) Loeber et al., 1998	Demographic questionnaire	2	1	How old were you when your first child was born?	Cutoff <20	N/A

Family on welfare (P) Loeber et al., 1998	Financial information questionnaire	2	1	Over the last year, has the household or anyone in the household received welfare?	Yes/no	N/A
Broken family (P) Loeber et al., 1998	Demographic questionnaire	2	1	How many adults are living in the home? What is their relationship to the child?	<2 bio. parents in home Cutoff <6	N/A
Small house (P) Loeber et al., 1998	Financial information questionnaire	2	1	How many rooms are in your home, including kitchen and bathrooms?	Cutoff <6	N/A
<i>Neighborhood Factors</i>						
Bad neighborhood US bureau of census	1980 US census tract information	2	6	Median family income, % unemployed, % poverty, % ages 10-14, % single female-headed households w/children, % divorced	Cutoff 25%	N/A
Bad neighborhood impression (P) Loeber et al., 1998	Neighborhood information scale	2	17	Which are problems in your neighborhood: Unemployment? Racial conflict? Vandalism?	3-point Likert	.95 (M) .94 (O)
<i>Peer Factors</i>						
Bad friends (PY) Loeber et al., 1998	Parents & peers scale	2	10	Parent: Disapprove of son's friends? Friends a bad influence on him? Youth: Anything friends do that parents don't want you to do? Parents told you not to spend time with any of your friends?	Yes/no	.72 (M) .75 (O)
Peer delinquency (Y) Loeber et al., 1998	Peer delinquency scale	2	11	In past 6 mos., how many of your friends . . . Lied/disobeyed/talked Back? Damaged Property? Attacked someone w/weapon?	3-point Likert	.84 (M) .90 (O)
Peer substance use (Y) Loeber et al., 1998	Peer delinquency scale	2	4	In past 6 mos., how many of your friends used . . . Alcohol? Marijuana? Hard Drugs? Sold hard drugs?	5-point Likert	.52 (M) .68 (O)
Unconventional peers (Y) Loeber et al., 1998	Conventional activities scale	2	8	Of friends you play/hang out with, how many have been in the last 6 mos . . . Involved in school activities/clubs/events? In school athletics? Good students?	5-point Likert	.71 (M) .77 (O)

*Note.* Full citations presented in the reference section.

<sup>a</sup>P = Parent; T = Teacher; Y = Youth.

<sup>b</sup>CBCL = Child Behavior Checklist; TRF = Teacher Report Form of the Child Behavior Checklist; YSR = Youth Self-Report of the Child Behavior Checklist; SRD = Self-Reported Delinquency Questionnaire; SRA = Self-Reported Antisocial Behavior Scale; RMFQ = Recent Moods and Feelings Questionnaire; DISC-P = Diagnostic Interview Schedule for Children-Parent Version.

<sup>c</sup>M = Middle sample; O = Oldest sample; N/A = not applicable.

### *Moderate Offenders*

*Group 4.* These were participants ( $n = 215$ ) who had demonstrated moderate levels of delinquent behaviors and/or committed moderately violent acts (e.g., stealing a bike or skateboard, breaking and entering, joyriding, stealing from a car, gang fighting). Again, this group was defined by the General Delinquency Seriousness Classification (see Loeber et al., 1998) as reported by the participants, their parents or teachers, over the same periods as above.

### *Minor Delinquency/Nonoffender Group*

*Group 5.* The General Delinquency Seriousness Classification (see Loeber et al., 1998) was used to identify participants ( $n = 302$ ) who demonstrated (a) no delinquency or (b) minor delinquency in the home (e.g., stealing a small amount of money from a parent) or (c) minor delinquency outside of the home that was not violent (e.g., stealing less than five dollars, shoplifting, arson without damage, failing to pay for a bus ride).

### *Statistical Analyses*

To address the research questions, the groups were compared stepwise. First, all violent offenders (including sex offenders) were compared with the other delinquent groups combined in order to identify characteristics of the violent group; and second, characteristics of sex offenders were investigated by comparing the violent sex offender group with the other violent offender groups. The following comparisons were made: (1) violent offenders (groups 1, 2, and 3 combined) versus moderate/non-offenders (groups 4 and 5 combined); and (2) violent sex offenders (group 1) versus all other violent nonsex offenders (groups 2 and 3). Differences between the groups were measured by means of chi-square tests for categorical variables and independent  $t$ -tests for continuous variables. A Fisher's exact test was used when expected cell counts were less than five. Because of the large number of independent variables, the  $p$ -value was set at 0.01, while  $p$ -values between 0.01 and .05 are denoted as a trend. No specific procedure was applied for dealing with missing values. Therefore, the number of participants included for each analysis is variable.

## **RESULTS**

### **Comparison of Violent Offenders (Including Sex Offenders) With Non-Violent Offenders**

Table II shows the bivariate results (chi-square test or Fisher exact test) for the comparison of both groups on each risk factor. The relationship was significant for 54 of the 66 (81%) risk factors at  $p < .01$ .

Table II. Comparison of Violent and Nonviolent Offenders

	Violent		Nonviolent		$\chi^2$ , (N); $p(1)$
	N	(%)	N	(%)	
<i>Child Delinquency</i>					
Screening risk score (PTY)	330	70%	169	52%	139.63(986); $p < .001$
Total delinquency (Y)	362	77%	251	49%	86.11(984); $p < .001$
Theft (Y)	253	54%	142	28%	72.99(982); $p < .001$
Fraud (Y)	193	41%	100	19%	56.80(982); $p < .001$
Serious delinquency (TY)	266	57%	40	8%	275.64(986); $p < .001$
<i>Child Substance Use</i>					
Boy's smoking (P)	49	11%	27	5%	9.70(978); $p < .01$
Boy's substance use (PT)	72	16%	40	8%	14.57(978); $p < .001$
Use of hard drugs (Y)	8	2%	1	<1%	6.25(982); $p = .02$
Exposure to drugs (Y)	169	37%	91	18%	44.53(979); $p < .001$
<i>Child Emotional/Behavioral Problems</i>					
Nonphysical aggression (PT)	223	48%	56	11%	163.39(986); $p < .001$
Physical aggression (PT)	207	44%	65	13%	122.65(986); $p < .001$
Cruel to people (PT)	151	33%	37	7%	100.80(980); $p < .001$
Truancy (PTY)	291	62%	168	33%	87.65(984); $p < .001$
Covert behavior (PTY)	191	41%	57	11%	117.36(978); $p < .001$
Lack of guilt (PT)	194	42%	69	14%	98.47(976); $p < .001$
Suspended (PY)	256	55%	92	18%	149.00(978); $p < .001$
Runaway (PY)	54	12%	25	5%	15.05(982); $p < .001$
Hyperactivity/impulsivity/ inattention (PT)	169	39%	56	12%	91.13(904); $p < .001$
Depressed mood (Y)	134	29%	92	18%	16.50(982); $p < .001$
Anxiety (PT)	133	28%	133	26%	.87(986); $p = .35$
Shy/withdrawn (PT)	170	36%	126	24%	16.51(986); $p < .001$
At least one Disruptive Behavior Disorder (P)	165	36%	73	14%	61.39(975); $p < .001$
Conduct Disorder (P)	72	83%	15	29%	48.23(975); $p < .001$
Oppositional Defiant Disorder (P)	102	22%	48	9%	30.53(975); $p < .001$
Attention Deficit Hyperactivity Disorder (P)	74	16%	32	6%	24.22(975); $p < .001$
<i>Child Sexual Behavior</i>					
Sexual intercourse (Y)	147	59%	65	27%	49.83(487); $p < .001$
Frequent heterosexual sex (Y)	93	38%	28	12%	43.75(484); $p < .001$
Many female partners (Y)	62	25%	15	6%	31.84(486); $p < .001$
		Mean		Mean	$t$ -test
Age at first sexual intercourse (Y)	142	11.2	64	11.4	.74; $p = .46$
		(%)		(%)	$\chi^2$ , (N); $p(1)$
<i>Child Attitudes</i>					
Positive attitude to problem behavior (Y)	138	30%	95	18%	17.14(981); $p < .001$
Positive attitude to delinquency (Y)	139	30%	89	17%	21.74(982); $p < .001$
Positive attitude to substance use (Y)	132	28%	101	20%	10.37(982); $p < .01$
Low school motivation (T)	217	51%	92	20%	97.54(899); $p < .001$
Negative attitude to school (Y)	142	31%	119	23%	6.89(982); $p = .01$
Low religious observance (Y)	146	31%	148	29%	.82(982); $p = .37$
Unlikely to get caught (Y)	145	31%	89	17%	25.95(982); $p < .001$
<i>Child Competence</i>					
Low academic achievement (PTY)	154	33%	91	18%	30.56(986); $p < .001$
Low jobs and chores competence (PY)	128	28%	109	21%	5.41(978); $p = .02$

Table II. Continued

<i>Family Factors</i>					
Discipline not persistent (PY)	101	24%	117	23%	.18(978); $p = .67$
Counter control (P)	165	36%	111	22%	24.09(977); $p < .001$
Physical punishment (PY)	156	34%	123	24%	11.79(978); $p < .001$
Parents disagree on discipline (P)	56	27%	76	23%	1.43(539); $p = .23$
Poor supervision (PY)	154	33%	110	21%	17.05 (977); $p < .001$
Boy not involved (PY)	119	26%	95	19%	7.95(970); $p < .01$
Positive parenting (PY)	136	29%	116	23%	5.97(980); $p = .01$
Poor relationship w/caretaker (PY)	245	53%	210	41%	14.65(979); $p < .001$
High parental stress (P)	157	34%	97	19%	29.00(979); $p < .001$
Poor communication (PY)	138	30%	104	20%	11.78(982); $p < .001$
Child abuse	94	20%	44	9%	27.17(986); $p < .001$
Parent substance use (P)	144	31%	113	22%	10.28(969); $p = .001$
Parent anxiety/depression (P)	108	24%	109	21%	.71(965); $p = .40$
Parent behavior problems (P)	100	22%	64	13%	14.80(966); $p < .001$
<i>Demographic Factors</i>					
		Mean		Mean	<i>t</i> -test
Age	469	11.0	517	10.5	5.09; $p < .001$
		(%)		(%)	$\chi^2$ , (N); $p(1)$
Low SES (P)	154	34%	98	19%	26.47(975); $p < .001$
African American (P)	324	69%	227	44%	63.22(986); $p < .001$
Poor housing (Interviewer)	130	30%	110	23%	5.64(914); $p = .02$
Young mother (P)	128	30%	88	18%	19.56(928); $p < .001$
Family on welfare (P)	224	52%	143	30%	47.30(916); $p < .001$
Broken family (P)	359	78%	270	53%	69.08(974); $p < .001$
Small house (P)	124	27%	92	18%	11.81(959); $p < .001$
<i>Neighborhood Factors</i>					
Bad neighborhood (Census)	211	50%	159	32%	30.25(917); $p < .001$
Bad neighborhood impression (P)	152	33%	86	17%	35.67(973); $p < .001$
<i>Peer Factors</i>					
Bad friends (PY)	159	34%	76	15%	50.35(981); $p < .001$
Peer delinquency (Y)	159	36%	78	16%	50.70(931); $p < .001$
Peer substance use (Y)	122	27%	69	14%	26.59(953); $p < .001$
Unconventional peers (Y)	107	24%	122	24%	.05(954); $p = .82$

Note. P = parent; T = teacher; Y = youth; PY and other combinations means a combined score of the informants.

### Comparison of Sex Offenders With Violent Offenders

Although analyses were conducted for all variables mentioned in Table II, only those with a  $p \leq .05$  are presented in Table III. Sex offenders differed from violent offenders on eight variables (see Table III), of which two were significantly different ( $p < .01$ ). The other variables can be described as a trend ( $.01 < p \leq .05$ ). Compared to VNSO, VSO had significantly more problems with regard to their housing, and tended to be older at screening.

Sex offenders, compared with nonsex offenders, showed more problems running away from home ( $p = .03$ ) and were exposed to less persistent parental discipline ( $p = .04$ ). Sex offenders compared to nonsex offenders showed better academic achievement ( $p = .04$ ) and lived in a better neighborhood ( $p = .05$ ). In

**Table III.** Comparison Between Sex Offenders and Violent Offenders

	Sex offenders		Violent offenders		$\chi^2(N)$ ; $P(1)$
	<i>N</i>	(%)	<i>N</i>	(%)	
Runaway (PY)	9	23%	45	11%	5.48(466); $p = .03$
Low academic achievement (PTY)	7	18%	147	34%	4.28(469); $p = .04$
Discipline not persistent (PY)	14	37%	96	23%	3.88(462); $p = .04$
Poor housing (Interviewer)	18	50%	112	28%	7.58(435); $p < .01$
Poorly educated mother (P)	13	36%	91	22%	3.79(452); $p = .05$
Young mother (P)	16	46%	112	29%	4.54(428); $p = .03$
Bad neighborhood (Census)	12	34%	199	51%	3.79(422); $p = .05$
	Mean		Mean		<i>t</i> -test
Age	39	11.8	430	11.0	2.75; $p < .01$

*Note.* P = parent; T = teacher; Y = youth; PY and other combinations means a combined score of the informants.

addition, sex offenders were more likely than violent offenders to have a poorly educated mother ( $p = .05$ ) and a young mother ( $p = .03$ ).

## DISCUSSION

This explorative study aimed at comparing juvenile violent sex offenders (VSO) and violent nonsex offenders (VNSO) using prospective longitudinal data from The Pittsburgh Youth Study. First, according to official conviction data and/or self-report it was found that 39 out of 986 youths were found to have committed a sexual offense, i.e., rape and (indecent) sexual assault. Second, it was demonstrated that the combined group of sexual and violent offenders differed from nonviolent delinquents on a majority of the variables measured (54 out of 66). Third, only two variables (of 66) were significantly different ( $p < .01$ ) between VSO and VNSO, whereas six variables showed a trend ( $p > 0.01 \leq .05$ ) towards significance. These findings indicate that juvenile sex offenders, in particular juveniles who commit violent sex offenses such as rape and sexual assault, are in many aspects similar to nonsexual violent offenders (see also Ness, 1984). Because of the large number of variables examined in this study, it can be expected that some of them would be significant by chance alone, which underlines the conclusion regarding the similarity between sex and nonsex offenders. Notwithstanding these considerations, the longitudinal design of this study, the selection of a normal population sample, and the inclusion of a large number of known risk factors are unique and may be considered strengths of this study.

Regarding the child factors measured, sex offenders may differ from violent offenders on: academic achievement (higher) and running away (more). Although



this study had a longitudinal design, it is still not possible to disentangle the developmental pathways of different types of antisocial behavior. Therefore, future research should focus on the developmental pathways towards sexualma offending. Elliot and Smiljanich (1994) suggested that rape is an endpoint that follows earlier delinquent, usually nonsexual violent behavior. Sex offenders exhibit a wide range of externalizing problem behavior, but they differed from violent offenders only on the item "run away from home." Further research should examine whether this is a specific characteristic of sex offenders, and to what extent there is a relationship with other characteristics, such as family circumstances or abuse history.

Many studies have described the family contexts of juvenile sex offenders, and most described their family backgrounds as very disturbed (e.g., Barbaree, Marshall, & McCormick, 1998). The current study demonstrated that both sex offenders and violent offenders experience severe family problems. However, sex offenders, compared to violent offenders, had more poorly educated and more young mothers who were less persistent in their discipline. Surprisingly, sex offenders did not differ from violent offenders on any of the peer factors. Studies of juvenile sex offenders have described sex offenders as loners who lack adequate social skills (Davis & Leitenberg, 1987; Ford & Linney, 1995; Manocha & Mezey, 1998; Miner & Crimmins, 1995; O'Callaghan & Print, 1994; Ryan & Lane, 1997; Valliant & Bergeron, 1997). It is likely that the similarity between both groups results from the fact that mainly rapists constitute the sex offender group. Furthermore, social deficits are reported to prevail in child molesters, a group probably not included in this study (Bullens & van Wijk, 2002; Hsu & Starzynski, 1990; van Wijk, 1999).

With regard to socio-demographic characteristics, sex offenders compared to violent offenders were more likely to live in poor housing conditions located in better neighborhoods. Some previous reports have demonstrated that sexual offending transcends all SES levels (Ryan, Miyoshi, Metzner, Krugman, & Fryer, 1996; Ryan & Lane, 1997), whereas others found juvenile sex offenders mainly in lower SES groups (Graves, Openshaw, Ascione, & Ericksen, 1996).

A number of shortcomings of the current study should be mentioned. Perhaps the main limitation is the small number and the heterogeneity of the sex offenders. Although we limited ourselves to violent sex offenses and excluded nonviolent sex offenses, the age of the victim could not be determined, which implies that a limited number of child molesters may be included. From the literature it is known that child molesters constitute a distinct group of sex offenders. Compared to rapists, child molesters exhibit more socially inadequate behavior and appear more socially isolated (Hsu & Starzynski, 1990; van Wijk, 1999), and they are more often victims of sexual abuse (Ford & Linney, 1995; Worling, 1995). For this reason, future studies should focus on these subtypes of sex offenders longitudinally.

Another limitation concerns the nature of the variables measured. Factors specifically related to sex offending were not studied, that is *modus operandi*

(Hunter, Hazelwood, & Slesinger, 2000), cognitive distortions (Ryan & Lane, 1997; Ward, Hudson, & Marshall, 1995; Ward, Keenan, & Hudson, 2000), the development of deviant sexual experiences and fantasies (Abel et al., 1987), and empathy (Burke, 2001; Hanson & Scott, 1995; Hudson & Ward, 2000). Including these characteristics should evidently be a task of future research.

In addition, further research should focus on larger groups of sex offenders, taking into account specific subtypes of juvenile sex offending. Whether sex offenders resemble nonsex offenders remains of clinical and legal interest. If further research confirms that sex offenders resemble nonsex offenders, the development of subgroup-specific therapeutic interventions may be questioned (Jacobs, Kennedy, & Meyer, 1997). On the other hand, if differences are detected, to what extent subgroup-specific treatment programs need to be developed should be evaluated. Besides the clinical and the economic aspect of implementing specific treatment trajectories, legal decision-making may become influenced by the outcome of such future research. Judicial authorities are responsible for determining a suitable intervention for juvenile sex offenders, and it is important to know what kind of intervention is most appropriate for a particular offender. Specific treatment facilities and approaches are increasing in number, while the evidence for developing them has not been established yet. Therefore, in order to find a rationale for differentiation of offenders and for developing specific treatment programs, further research is needed.

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